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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/708,750 | 03/23/2004 | Charles M. Helms | SPE24 | 2749 |
| 23508 | 7590 | 08/09/2005 | EXAMINER | |
| LUNDEEN & DICKINSON, LLP PO BOX 131144 HOUSTON, TX 77219-1144 | | | BOMAR, THOMAS S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3672 | |

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/708,750

Applicant(s)

HELMS ET AL.

Examiner

Shane Bomar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-59 is/are allowed.
- 6) ☒ Claim(s) 1,3-17 and 20-23 is/are rejected.
- 7) ☒ Claim(s) 2,18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/23/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 8, 16, 19-21, 26, and 53 are objected to because of the following informalities: there is an unnecessary period following the recitation of “claim 1” in claim 8; in claim 16, the recitation of “the top entry sub” lacks proper antecedent basis, which then makes claim 20 not further limiting and claim 21 is claiming two types of subs at once, and the recitation of “the said articulated” should most likely be --said articulated--; in claim 19, the recitation of “wherein one articulated knuckle joint is located between the entry sub and an upper connection to the drillstring and another articulated knuckle joint” could possibly be reworded as follows for clarity purposes: -- wherein one of the articulated knuckle joints is located between the entry sub and an upper connection to the drillstring and the other articulated knuckle joint--; in claim 26, the recitation of “an articulated knuckle joint” should most likely be --the first articulated knuckle joint-- so that the proper joint is being referred to; claim 53 is an exact duplicate of claim 52 and should either be removed or its dependency be changed. Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.84(h)(3) because they fail to show the proper hatching for the different parts in cross section of Figures 2 and 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being

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amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-10, 13-17, and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 5,996,712 to Boyd.

Regarding claims 1, 15, and 16, Boyd discloses an apparatus, or improved entry sub, located above a wellhead that comprises: a main body 33 having an upper end 30 and a lower end 39, said lower end including a connection to the drillstring and said upper end providing an upper connection to the drillstring and an entry port 34; an articulated knuckle joint 52, 54, 56 to

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allow deflection of said main body relative to said lower connection to the drillstring; said main body configured to provide fluid communication between said upper connection and said lower connection; and a communications pathway 34 extending through said main body from said entry port to said lower connection wherein said pathway is configured to receive the communications conduit 24 therethrough (see Figs. 1 and 2, and col. 3, line 17 through col. 4, line 44).

Regarding claims 3 and 4, the joint of claim 1 permits and restricts relative rotation between the lower connection and said main body (see col. 5, lines 10-30).

Regarding claim 5, the apparatus of claim 1 further comprises one or more tools attached to the end of conduit 24 (see col. 1, lines 37-44).

Regarding claims 6 and 7, the main body and articulated joint are configured to transmit tensile drillstring loads from between the upper connection and the lower connection, as well as inherently preventing bending moments from acting across the main body (see col. 5, lines 10-51).

Regarding claims 8 and 22, the communications pathway 34 is substantially coaxial with the lower connection when tools on the conduit 24 are passed therethrough (see Figs. 1 and 2).

Regarding claims 9 and 23, the communications pathway 34 and the lower connection 39 would inherently be axially skewed when tension loads are applied across the upper and lower connections, although the amount by which the two are skewed may be minimal (see Fig. 2).

Regarding claim 10, the pathway of claim 1 includes a receiving profile 30 (see Fig. 2).

Regarding claim 13, the joint of claim 1 includes a replaceable wear sleeve 75 (see Fig. 5).

Regarding claim 14, the conduit of claim 1 is selected from the currently claimed group (see col. 2, lines 1-7).

Regarding claim 17, the joint of claim 16 is located between the entry sub and a lower connection 39 to the drillstring (see Fig. 2).

Regarding claims 20 and 21, the entry sub is either a top or side entry type (see Figs. 1 and 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd in view of US patent 6,269,879 to Boyd (Boyd '879).

Boyd teaches the apparatus of claim 10 that includes a receiving profile 30, however it is not explicitly taught that the profile includes a hardened, wear-resistant material or a replaceable wear sleeve.

Boyd '879 teaches an apparatus similar to that of Boyd. It is further taught that a receiving profile in element 36 includes a hardened, wear-resistant material or a replaceable wear sleeve (see Figs. 4 and 5, and col. 3, line 39 through col. 4, line 20). It would have been obvious to one of ordinary skill in the art, having the teachings of Boyd and Boyd '879 before him at the time the invention was made, to modify the receiving profile taught by Boyd to include the

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hardened, wear-resistant material or replaceable wear sleeve of Boyd '879, in order to obtain an entry sub that resists wear due to wirelines. One would have been motivated to make such a combination since Boyd '879 has shown it to be notoriously known in the art to use these types of sleeves in any known entry sub for wear protection (See col. 4, lines 32-43).

Allowable Subject Matter

7. Claims 24-59 are allowed since the prior art of record, either alone or in combination, fails to teach or suggest an entry sub with deflection joints at opposed ends of the entry sub, as is currently claimed.
8. Claims 2, 18, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

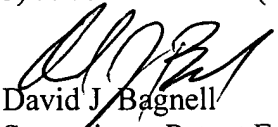
Conclusion

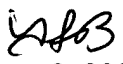
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gonduin, Kauffman et al, Kimura et al, Reed, and Runia teach other joints of particular interest.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 7:00am to 4:30pm. The examiner can also be reached on alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David J. Bagnell
Supervisory Patent Examiner
Art Unit 3672

tsb 
August 2, 2005